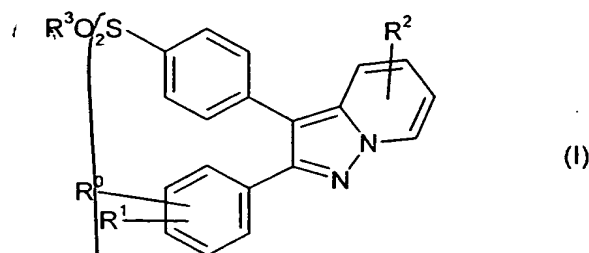


Claims

## 1. Compounds of formula (I)



and pharmaceutically acceptable derivatives thereof in which:

$R^0$  and  $R^1$  are independently selected from H, halogen,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy, or  $C_{1-6}$ alkoxy substituted by one or more fluorine atoms;

$R^2$  is H,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkyl substituted by one or more fluorine atoms,  $C_{1-6}$ alkoxy,  $C_{1-6}$ hydroxyalkyl,  $SC_{1-6}$ alkyl,  $C(O)H$ ,  $C(O)C_{1-6}$ alkyl,  $C_{1-6}$ alkylsulphonyl,  $C_{1-6}$ alkoxy substituted by one or more fluorine atoms; and

$R^3$  is  $C_{1-6}$ alkyl or  $NH_2$ .

2. Compounds as claimed in claim 1 wherein  $R^0$  and  $R^1$  are independently H, halogen,  $C_{1-6}$ alkyl, or  $C_{1-6}$ alkoxy;  $R^2$  is  $C_{1-3}$ alkyl substituted by one or more fluorine atoms; and  $R^3$  is  $C_{1-3}$ alkyl or  $NH_2$ .

3. Compounds as claimed in claim 1 or 2 wherein  $R^0$  and  $R^1$  are independently H, F, Cl,  $C_{1-3}$ alkyl (e.g. methyl), or  $C_{1-3}$ alkoxy (e.g. ethoxy);  $R^2$  is  $C_{1-3}$ alkyl substituted by one or more fluorine atoms (e.g. trifluoromethyl); and  $R^3$  is methyl or  $NH_2$ .

4. Compounds as claimed in any one of claims 1 to 3 wherein  $R^0$  is F, Cl, or  $C_{1-3}$ alkyl (e.g. methyl) or  $C_{1-3}$ alkoxy (e.g. ethoxy);  $R^1$  is H;  $R^2$  is  $C_{1-3}$ alkyl substituted by one or more fluorine atoms (e.g. trifluoromethyl); and  $R^3$  is methyl or  $NH_2$ .

5. Compounds as claimed in any one of claims 1 to 4 wherein  $R^0$  is at the 3- or 4- position of the phenyl ring; and  $R^2$  is at the 6- position of the pyridine ring.

6. 4-[2-(3-fluoro-phenyl)-6-trifluoromethyl-pyrazolo[1,5-a]pyridin-3-yl]-benzenesulfonamide;  
2-(3-fluoro-phenyl)-3-(4-methanesulfonyl-phenyl)-6-trifluoromethyl-pyrazolo[1,5-a]pyridine;  
4-[2-(4-ethoxy-phenyl)-6-trifluoromethyl-pyrazolo[1,5-a]pyridin-3-yl]-benzenesulfonamide;  
4-[2-(4-fluoro-phenyl)-6-trifluoromethyl-pyrazolo[1,5-a]pyridin-3-yl]-benzenesulfonamide;  
2-(4-fluoro-phenyl)-3-(4-methanesulfonyl-phenyl)-6-trifluoromethyl-pyrazolo[1,5-a]pyridine;  
4-(2-phenyl-6-trifluoromethyl-pyrazolo[1,5-a]pyridin-3-yl)-benzenesulfonamide;  
3-(4-methanesulfonyl-phenyl)-2-phenyl-6-trifluoromethyl-pyrazolo[1,5-a]pyridine;  
4-[2-(4-methyl-phenyl)-6-trifluoromethyl-pyrazolo[1,5-a]pyridin-3-yl]-benzenesulfonamide;  
and pharmaceutically acceptable derivatives thereof.
7. N-acetyl-4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;  
N-acetyl-4-[2-(4-ethoxyphenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;  
N-acetyl-4-[2-phenyl-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;  
sodium salt of N-acetyl-4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;  
4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]-N-(2-methoxyacetyl)benzenesulfonamide;  
4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]-N-propionylbenzenesulfonamide;  
4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]-N-isobutyrylbenzenesulfonamide;  
N-benzoyl-4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;  
methyl 4-[(4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]phenyl)sulfonyl]amino-4-oxobutanoate;

4-[(4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]phenyl)sulfonyl]amino]-4-oxobutanoic acid;

4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]-N-pentanoylbenzenesulfonamide;

2-[(4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]phenyl)sulfonyl]amino]-2-oxoethyl acetate;

N-acetyl-4-[2-(4-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;

N-(2-chloroacetyl)-4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;

N-[2-(diethylamino)acetyl]-4-[2-(3-fluorophenyl)-6-

(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;

methyl {4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]phenyl)sulfonyl}carbamate; and

tert-butyl {4-[2-(3-fluorophenyl)-6-(trifluoromethyl)pyrazolo[1,5-a]pyridin-3-yl]phenyl)sulfonyl}carbamate.

8. 4-[6-chloro-2-(3-ethoxyphenyl)pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;

6-chloro-2-(3-ethoxyphenyl)-3-[4-(methylsulfonyl)phenyl]pyrazolo[1,5-a]pyridine;

4-[6-methyl-2-phenyl-pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;

4-[2-(3-fluorophenyl)-6-methyl-pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;

4-[2-(3-ethoxyphenyl)-6-methyl-pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;

4-[2-(4-ethoxyphenyl)-6-methyl-pyrazolo[1,5-a]pyridin-3-yl]benzenesulfonamide;

6-methyl-2-phenyl-3-[4-(methylsulfonyl)phenyl]pyrazolo[1,5-a]pyridine;

2-(3-fluorophenyl)-6-methyl-3-[4-(methylsulfonyl)phenyl]pyrazolo[1,5-a]pyridine;

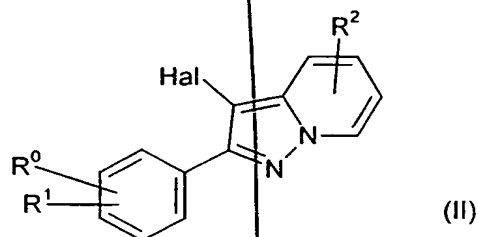
2-(3-ethoxyphenyl)-6-methyl-3-[4-(methylsulfonyl)phenyl]pyrazolo[1,5-a]pyridine;

2-(4-ethoxyphenyl)-6-methyl-3-[4-(methylsulfonyl)phenyl]pyrazolo[1,5-a]pyridine;

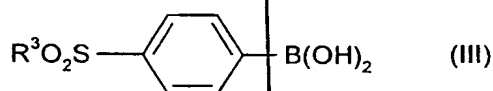
and pharmaceutically acceptable derivatives thereof.

9. A process for the preparation of compounds of formula (I) and pharmaceutically acceptable derivatives thereof as defined in any one of claims 1 to 8, which comprises:

(A) reacting a compound of formula (II)

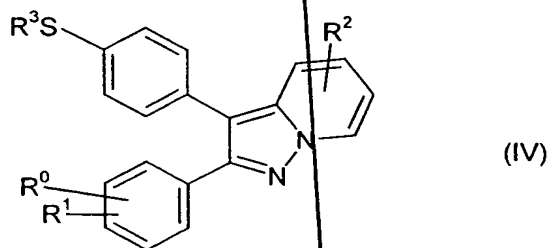


or a protected derivative thereof, with a compound of formula (III)



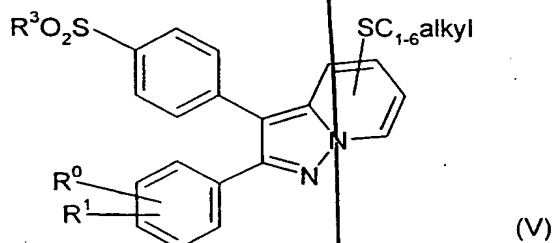
or a protected derivative thereof; or

(B) where R<sup>3</sup> represents C<sub>1-4</sub>alkyl, reacting a compound of formula (IV)



or a protected derivative thereof with an oxidising agent; or

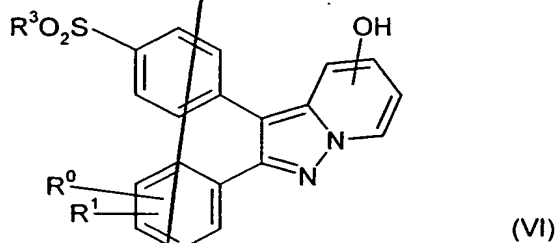
(C) where R<sup>2</sup> is C<sub>1-6</sub>alkylsulphonyl, oxidising a compound of formula (V)



or a protected derivative; or

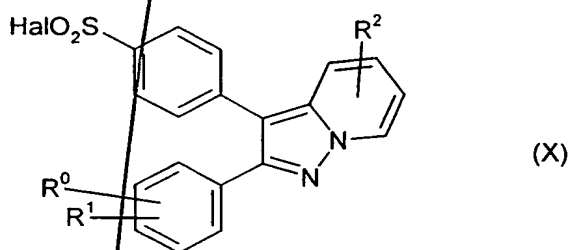
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(D) where  $R^2$  is  $C_{1-6}$ alkoxy substituted by one or more fluorine atoms, reacting a alcohol of formula (VI)



or a protected derivative thereof with a halofluoroalkane; or

(E) where  $R^3$  is  $NH_2$ , reacting a compound of formula (X)



with a source of ammonia under conventional conditions; or

(F) interconversion of a compound of formula (I) into another compound of formula (I); or

(G) deprotecting a protected derivative of compound of formula (I);

and optionally converting compounds of formula (I) prepared by any one of processes (A) to (G) into pharmaceutically acceptable derivatives thereof.

10. A pharmaceutical composition comprising a compound of formula (I) or a pharmaceutically acceptable derivative thereof as defined in any one of claims 1 to 8 in admixture with one or more physiologically acceptable carriers or excipients.
11. A compound of formula (I) or a pharmaceutically acceptable derivative thereof as defined in any one of claims 1 to 8 for use in human or veterinary medicine.

12. A compound of formula (I) or a pharmaceutically acceptable derivative thereof as defined in any one of claims 1 to 8 for use in the treatment of a condition which is mediated by selective inhibition of COX-2.
13. A method of treating a human or animal subject suffering from a condition which is mediated by selective inhibition of COX-2 which comprises administering to said subject an effective amount of a compound of formula (I) or a pharmaceutically acceptable derivative as defined in any one of claims 1 to 8.
14. A method of treating a human or animal subject suffering from an inflammatory disorder, which method comprises administering to said subject an effective amount of a compound of formula (I) or a pharmaceutically acceptable derivative thereof as defined in any one of claims 1 to 8.
15. The use of a compound of formula (I) or a pharmaceutically acceptable derivative thereof as defined in any one of claims 1 to 8 for the manufacture of a therapeutic agent for the treatment of a condition which is mediated by selective inhibition of COX-2.
16. The use of a compound of formula (I) or a pharmaceutically acceptable derivative thereof as defined in any one of claims 1 to 8 for the manufacture of a therapeutic agent for the treatment of an inflammatory disorder.

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